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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Docket: ATM-2273

Appellants : Hans-Rudolf NAGELI, et al.

Examiner : Elena Tsoy

Serial No. : 09/726,372

Art Unit: 1762

Filed : 12/01/2000

For : PROCESS FOR THE PRODUCTION OF A PLASTIC-COATED ALUMINUM FOIL AND PACKAGIN MADE FROM THIS

TRANSMITTAL LETTER

Mail Stop Appeals Brief
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Attached hereto, please find:

(1) Appeal Brief (in triplicate) in support of appellants' appeal to the September 15, 2005 Notice of Non-Complaint Appeal Brief

(2) Return Receipt Postcard

If any additional fees are due upon the filing of this paper, please charge Deposit Account No. 06-1110. A duplicate of this Transmittal Letter is attached for such purpose.

Respectfully submitted,

Oct. 17, 2005
Date

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CERTIFICATE OF MAILING

I hereby certify that this correspondence of is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Appeal Brief, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 17, 2005.

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APPEAL BRIEF

Mail Stop--Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellants have appealed from the final Office Action of April 1, 2004 rejecting all of pending Claims 28 to 55 and the appealable objection to the amendment to the specification. This revised appeal brief is also filed in response to the Notification of Non-Complaint Appeal Brief (dated September 15, 2005). Appellants request reversal of the rejections and the appealable objection.

(1) REAL PART IN INTEREST

The four appellants, who are individuals, assigned the application (recorded on 12/01/2000 at reel 011348, frame 0106) to Alusuisse Technology & Management Ltd., a corporation of Switzerland and having a principle place of business at Neuhausen am Rheinfall, Switzerland CH-8212. The corporate name of Alusuisse Technology & Management Ltd. was changed to Alcan Technology & Management Ltd. (recorded on 05/07/2002 at reel 012877, frame

0412). Alcan Technology & Management Ltd. is directly or indirectly owned/ controlled by Alcan Inc., a Canadian corporation and having its head office in Montreal, Canada. The real party in interest is Alcan Inc.

(2) RELATED APPEALS AND INTERFERENCES

Appellants, appellants' legal representatives, and assignee do not know of any other appeals or interferences that will directly affect or have a bearing on the Board's decision in the pending appeal.

(3) STATUS OF CLAIMS

Claims 1 to 27 have been cancelled. Claims 28 to 55 are pending. Claims 28 to 55 have been rejected. The specification (and, therefore, indirectly Claims 28 to 55) has been objected to on the ground of new matter amendment. The Claim 28 to 55 rejections, and the Section 132 new matter objection to the specification amendment are appealed.

(4) STATUS OF AMENDMENTS

The amendment after final, filed on May 13, 2004, subsequent to the final rejection, was entered for purposes of appeal as per the Advisory Action of May 21, 2004.

(5) SUMMARY OF CLAIMED SUBJECT MATTER

The following is a concise statement of the claimed subject matter in independent Claim 28. This claim involves the process for the production of the aluminum foil (Figure1, reference character 10) coated with the sealable and sterilizible plastic (reference character 14) based on polypropylene (PP) or

polyethylene (PE) (page 1, lines 4 to 8). (All of the reference characters are found in Figure 1, unless otherwise noted.)

The plastic (reference character 14) with the adhesive-promotion agent (reference character 16), is coextruded to form a coextrudate (page 1, lines 33 and 34). The coextrudate of the plastic (reference character 6) and the adhesion-promotion agent (reference character 16) is combined with an aluminum foil (reference character 24) between two rollers (reference characters 20, 22) (page 1, lines 34 and 35). In the combination step using the two rollers, the temperature of the coextruded-coated aluminum-foil is such that the temperature at the outer surface of the plastic (reference character 14) of the coextrudate of the plastic (reference character 14) and the adhesion-promotion agent (reference character 16) lies below the crystallite melt point (T_K) of the plastic (reference character 14), (Figure 1).

The coextruded-coated aluminum foil (reference character 10), to increase the adhesion strength between the aluminum foil (reference character 24) and the plastic coating (reference character 14), is passed continuously through the oven (reference character 26) with temperature (T_O) set so that the temperature at the outer surface of the plastic (reference character 14) of the coextrudate of the plastic (reference character 14) and the adhesion-promotion agent (reference character 16) lies below the crystallite melt point (T_K) of the plastic (reference character 14) (page 2, last line, to page 3, line 4).

The coextruded-coated aluminum foil (reference character 10) heat-treated in this way, after emerging from the oven (reference character 26), is

cooled in a shock-like manner such that the crystalline portion of at least the outer surface area of the cooled plastic coating (reference character 14) and the crystal grains in the outer surface area are as small as possible (page 3, lines 3 to 8 and page 3, line 17, to page 4, line 3). This shock-like cooling of the plastic coating reduces the after-crystallization, i.e., results in the obtaining of a mainly amorphous surface structure (page 3, lines 34 to 38).

The following is a concise statement of the claimed subject matter in independent Claim 55. This claim involves a process for production of an aluminum foil (reference number 10) coated with a plastic (reference number 14). The process is restricted in scope by the use of the term "consisting".

The process involves coextruding the plastic (reference number 14) that is sealable and sterilizible and that is based on polypropylene (PP) or polyethylene (PE) with an adhesion promotion agent (reference number 16), to form a coextrudate (page 1, lines 4 to 8).

Then the process involves laminating the coextrudate of plastic (reference number 14) and adhesion-promotion agent (reference number 16), and an aluminum foil (reference number 24) together between two rollers (reference numbers 20, 22), the adhesion-promotion agent (reference number 16) being next to the aluminum foil (reference number 24), the temperature of the coextruded-coated aluminum foil being such that the temperature at outer surface of the plastic (reference number 14) of the extrudate of the plastic (reference number 14) and the adhesion-promotion agent (reference number 16)

ties below the crystallite melt point (T_K) of the plastic (reference number 14), (page 1, lines 34 and 35, and Figure 1).

The process then involves the continuously passing the coextruded-coated aluminum foil (reference number 10), to increase the adhesion strength between the aluminum foil (24) and the plastic coating (reference number 14), through an oven (reference number 26) with temperature (To) set so that the temperature of the outer surface of the plastic (reference number 14) of the coextrudate of the plastic (reference number 14) and the adhesion-promotion (reference number 16) lies above the crystallite melt point (T_K) of the plastic (reference number 14), (page 2, last line, to page 3, line 4).

The process further involves cooling the coextrudated-coated aluminum foil (reference number 10) heat-treated in this way, after emerging from the over (reference number 26), in a shock-like manner such that the crystalline portion in at least the outer surface area of the cooled plastic coating (reference number 14) and the crystal gains in this outer surface area are as small as possible. (page 3, lines 3 to 8, and page 3, line 17, to page 4, line 3).

(6) GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection (objection) presented for review on appeal are:

(I) Claims 28, 29, 51 and 52 have been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,093,208 (Heyes et al.).

(II) Claim 55 has been rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,093,208 (Heyes et al.).

(III) Claims 30 to 50, 53 and 54 have been rejected under 35 U.S.C. 103(a) over U.S. Patent No. 5,093,208 (Heyes et al.) in view of U.S. Patent No. 5,837,360 (Takano et al.).

(IV) Claims 28 to 55 have been rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

(V) Claims 28, 29, 51 and 52 has been objected to under 35 U.S.C. 132 on the ground that the amendment filed on November 26, 2002 introduced new matter into the disclosure.

(7) ARGUMENT

First Grounds Of Rejection On Appeal

The first grounds of rejection on appeal for consideration by the Board in this appeal is whether or not Claims 28, 29, 51 and 52 are unpatentable under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,093,208 (Heyes et al.). Appellants contend that such claims are not anticipated by Heyes et al.

Regarding the first grounds of rejection (I), i.e., the rejection under 35 U.S.C. 102(b), the claims are grouped as follows:

(I) Group I, namely, Claim 28.

(II) Group 2, namely, Claim 29.

(III) Group 3, namely, Claim 51

(IV) Group 4, namely, Claim 52.

The claim of Group 1, the claim of Group 2, the claim of Group 3, and the claims of Group 4 do not stand or fall together. Also, none of the claims under the first grounds of rejection (I) stand or fall together with Claim 55 of the second grounds of rejection (II).

Group 1, Claim 28

Appellants' independent Claim 28 involves a process that starts out requiring the coextrusion of a polyethylene-based plastic or a polypropylene-based plastic, and an adhesion promotion agent. The coextrudate and an aluminum foil are laminated together between two rollers (with the adhesion promotion agent being next to the aluminum foil). The temperature of the coextruded-coated aluminum foil being such that the temperature of the outer

surface of the plastic of the coextrudate lies below the crystallite melt point of the plastic. The coextrudate exits the extruder with its components in the melted state. In order for the outer surface of the coextrudate to be below the plastic's crystallite melt point (upon the lamination step being done), the temperature of the coextrudated-coated aluminum foil has to be lower than the plastic's crystallite melt point. This physical reality and result are inherent from the recited claim limitation. To physically achieve the stated result of the claim limitation, the aluminum foil at the onset of the lamination step has to have a temperature below the plastic's crystallite melt point. (The Examiner agreed that the specification showed the aluminum foil being at room temperature at the start of the lamination step.) The aluminum foil at the lower temperature acts as a heat sink regarding the coextrudate thereby resulting in the outer surface of plastic (layer) being below the plastic's crystallite melt point (T_k). Heyes et al. does not disclose appellants' claim limitation of the aluminum foil, after lamination, being such that the temperature of the outer surface of the plastic of the coextrudate is below the plastic's crystallite melt point.

The Examiner cannot have established in the record a prima facie showing of anticipation because, besides other reasons, the Final Office Action expressly stated that it relied on the reasons in an Office Action issued before Claim 28 was amended (to its content as presented in this appeal).

Appellants coextrude the polyolefin (i.e., polypropylene or polyethylene) and the adhesion-promotion agent. The melted materials exit the coextruder

nozzle. The coextrudate is still very hot for a substantial time after exiting the nozzle. These are inherent features of the coextrusion in appellants' process.

When the very hot coextrudate is combined with the aluminum foil, the temperature of the aluminum has to be low enough so that the outer surface of the polyolefinic portion of the coextrudate stays below the crystallite melt point (T_K) of the olefin. The coextrudate is combined with the aluminum foil between two rollers. The aluminum foil acts as a heat sink regarding the coextrudate – this is inherent – thereby maintaining the temperature of the outer surface of the plastic coating below the crystallite melt point (T_K) of the olefinic plastic.

Nowhere does Heyes et al. teach (or even suggest) using the aluminum foil as a heat sink. Heyes et al. teaches preheating (heater 1, e.g.) the aluminum foil to above or near the melting point of the polyester - that then results in raising (not lowering) the temperature of the cooler polyester coating. Figures 1 and 2 of Heyes et al. show its polyester in rolls at room temperature. Heyes et al. uses the heated aluminum as a heat source. Heyes et al. does not anticipate any of appellants' process claims.

The invention of Heyes et el. is limited to using extrudates or coextrudates of polyester or polyesters. On this ground alone the Heyes et al. invention does not anticipate any of appellants' process claims.

In discussing and disclosing the prior art (see column 1, lines 14 to 36) and the disadvantages thereof compared to Heyes et al.'s invention, Heyes et al. discloses that such prior art polyolefin coatings on metal sheet (aluminum foil) are unsatisfactory for the manufacture of drawn and wall-ironed cans (DWI cans).

Examples 11 and 12 of Heyes et al. are examples of prior art using polyolefin coatings for comparison to the Heyes et al. invention. Prior art Examples 11 and 12 use laminate types H and I, respectively, that each has coextruded polypropylene composite film on both sides of the aluminum sheet. (The laminates of both prior art Examples 11 and 12 are stated to exhibit poor formality and to give metal failure in can forming.) Prior art Examples 11 and 12 of Heyes et al. use the Heyes et al. method of laminate formation that includes using "preheating the metal strips" and then passing the coextruded polyolefin composite films and the preheated metal strips into a pair of nip rolls. Accordingly, prior art Examples 11 and 12 of Heyes et al. also do not anticipate any of the appellants' process claims.

Nowhere does the invention of Heyes et al. teach lamination using aluminum sheet that has a temperature lower than the coextruded polyester film. Heyes et al. generically discloses laminating the coextruded polyester film to the metal sheet but such disclosure is not anticipatory because it does not teach all of the requirements and limitations of appellants' process claims. Heyes et al.'s generic disclosure is not a teaching of a process step where the relatively cool temperature of the aluminum foil causes the outer surface of the hot polyolefin to stay below its crystallite melt point (T_K). Heyes et al. states:

> "The laminated metal sheet of the invention is prepared by a process which compromises adhering directly to one or both major surfaces of the metal sheet a film comprising a polyester, the lamination conditions being such that during lamination the polyester film or films in

the metal/polymer laminate is or are converted into non-crystalline or amorphous form." [Col. 3, lines 33 to 39]

The only specific schemes taught in Heyes et al. are ones which use preheating of the aluminum sheet.

Heyes et al. states:

"In one preferred process of preparing the metal polymer laminates in accordance with the invention polyester monolayer film or films are adhered to the metal sheet by heating the metal sheet to a temperature (T1) above the melting point of the polyester films, the temperature (T1) being such that during lamination of the polyester films to the metal sheet, the outer surfaces of the polyester films remain below their melting points...."

"In an alternative preferred process, the polyester film or films are composite films (A) comprising an inner layer (A1) and an outer layer (A2), and the composite polyester films are simultaneously adhered to the metal sheet by a process which comprises

(1) heating the metal sheet to a temperature (T1) above the softening point of the polyester inner layer (A1) but below the melting point of the outer layer (A2),...." [Emphasis supplied] [Col. 3, lines 40 to 62]

In the disclosure of Heyes et al. that deals specifically with the temperature of the coextruded plastic coatings, the coextruded plastic materials are at a temperature less than the preheated metal (aluminum) sheet. Heyes et al. states:

"Polymer/metal/polymer laminates were prepared by a lamination process performed in apparatus as illustrated schematically in FIG. 1 or FIG. 2 of the accompanying drawings. A metal sheet M was pre-heated by infrared or induction heating to an appropriate temperature T_1 by a heater 1. Temperature T_1 is usually within the range 140° and 350°C. Polyester films A and B were fed from feed rolls 2 and 4 and laminated to the opposite sides of the pre-heated metal sheet between lamination rolls 6, 8...." [Emphasis supplied] [Col. 6, line 65, to Col. 7, line 5]

Figures 1 and 2 of Heyes et al. do not show any preheating of polyester films A and B, either in the rolled up state or being fed to lamination rolls 6, 8. Since Heyes et al. does not recite any temperature for polyester films A and B before the lamination steps (rollers 6, 8), in accordance with scientific/technical practice (and C.C.P.A. decision), polyester films A and B were at room temperature.

Heyes et al. only discloses generically adhering a polyester to a metal sheet [without any reference to the temperature of either substance, or specifically adhering a polyester (or polyolefin) film to a metal sheet that has been preheated], with specific disclosure showing that the polyester film is at room temperature (that is, below the preheating temperature of the metal sheet). Heyes et al. is not an anticipatory reference.

The Examiner has written that it is the Examiner's position that the surface area of the cooled PP layer has claimed properties such that if the quenched non-crystalline plastic still has small amounts of crystals, then the crystal grains are as small as possible inherently since it is produced by a method identical or

substantially identical processes to that of claimed invention. Appellants' traverse this statement as being factually incorrect and mere speculation unsupported by the record. The process of Heyes et al. and the process of the appellants' claims are not identical or substantially identified, as shown above. The difference between preheating the aluminum sheet and the coextruded polyolefin/adhesion-promotion agent results in substantial differences. The Examiner's assertion of Heyes et al. inherently achieving crystal grains as small as possible is faulty and lacks factual support.

Regarding Heyes et al.'s comparative prior art Examples 11 and 12, Heyes et al. states:

> "Examples 11 and 12 show that laminates formed from polypropylene materials of the type described in GB 2003415 exhibited poor formality. Such laminates were found to give metal failure can forming." [Emphasis supplied] [Col. 9, lines 65 to 68]

Table II also recites poor formability for comparative prior art Examples 11 and 12.

So it is clear that Heyes et al. did not inherently achieve crystal grains as small as possible when PP-laminates were formed in Hayes et al.'s comparative prior art Examples 11 and 12. Both of these comparative prior art examples using PP-material are not part of the Hayes et al. invention that uses only polyesters and seeks to avoid such prior art and its stated problems.

The feature of appellants' process of using hot coextruded polyolefin/adhesion-promotion agent and cooler aluminum foil helps provide

different results. The hot/soft polyolefin/adhesion-promotion agent of applicants' process has more time in the nip region to effect elevated temperature adhesion to the aluminum foil than does the scheme of Heyes et al. wherein the plastic composite has to first be heated up by the preheated aluminum sheet during the very short time period involved in passing through the two laminated rollers. The Examiner's attempt to use the concept of inherency fails (even for Hayes et al.'s comparative prior art Examples 11 and 12).

Appellants' process produces containers that have essentially no white breaks in the deformation area.

Appellants claim a one-step production process that substantially differs from the multi-step production process of Heyes et al. There are actual physical differences in the processes that are not ones "claimed in terms of function property or characteristics." As shown above, the products of the two processes differ. The burden of proof has not shifted to appellants.

The Examiner has not factually established in the record that a prima facie showing of anticipation exists. The two processes are substantially different. Appellants have shown that the Examiner has not established a prima facie showing of anticipation of Claim 28 (or any other of appellants' claims).

In the Advisory Action the Examiner wrote:

> "(C) Applicants argue that Examples 11 and 12 of Heyes et al. use the Heyes et al method 'preheating the metal strips'. Accordingly, Examples 11 and 12 of Heyes et al, do not anticipate any of applicants' process claims."

"The Examiner respectfully disagrees with this argument. Examples 11 and 12 of Heyes et al do anticipate applicants' process of claim 28 because the method of claim 28 'comprises' recited steps. Accordingly, the method does not exclude the step of 'preheating the metal strips'." [Page 3, lines 9 to 14]

The above statement does not set out the content of Claim 28 or appellants' analysis of the factual disclosure of comparison prior art Examples 11 and 12 of Heyes et al. (For details see above.)

Heyes et al. preheats an aluminum foil to a temperature that will melt or soften the polypropylene used in comparison prior art Examples 11 and 12. As these are comparison examples, the procedure is the same as the Heyes et al. invention examples. The plastic films (H, I, respectively) are at room temperature when they are fed to roller (6, 8) to be laminated with the heated aluminum foil. (Since no temperature is given for the plastic films, convention is that they are at room temperature.) Therefore, Heyes et al., and comparison prior art Examples 11 and 12, discloses heating room temperature polypropylene films with preheated aluminum foil (i.e., at a temperature above that of the polypropylene films) when laminating such films/foil in rollers (6, 8); the plastic films thereby act as heat sinks. Accordingly, Heyes et al. does not anticipate Claim 28.

In independent Claim 28, the aluminum foil is required to act as a heat sink, and to be at a temperature below that the (thermoplastic) PE to PP coextrudate at the start of the lamination in the two rollers. This is shown by dependent Claim 47 which recites the aluminum foil is at room temperature when

the films/foil are combined. The Examiner's report of the personal interview shows that the Examiner apparently agreed that the appellants' disclosure supported the temperature of the aluminum foil being at room temperature at the time of the films/foil being fed into the two rollers. In this manner, the temperature of the aluminum foil after lamination is such that the temperature of the outer surface of the PP of the coextrudate lies before the crystallite melt point of the PP. Since the coextrudate comes from a coextruder, it is at a higher temperature that the, say, room temperature aluminum foil of Claim 47. The coextrudate starts at a higher temperature than the aluminum foil and cannot end at a lower temperature than the aluminum foil after the roller lamination. This is the result from applicants' claim language (and disclosure), so Heyes et al.'s comparative prior art Examples 11 and 12 do not provide the same process as applicants' claimed process.

Appellants request that the Board reverse this Section 102(b) rejection.

Group 2, Claims 29

Claim 29 is dependent upon independent Claim 28. Heyes et al. does not anticipate Claim 28 so it cannot anticipate dependent Claim 29.

Claim 29 requires that the temperature in the oven be at least 20°C above the crystallite melt point of the plastic in the coextrudate. This limitation/requirement is not recited in Claim 28 (or Claims 51 and 52) so Claim 29 is separately patentable therefrom [under this Section 102(b) rejection]. Anticipation under Section 102(b) requires disclosure in a single prior art references of all of the steps, structure, limitations, recitations, etc., in a claim.

Anticipation of an independent claim does not mean anticipation of a dependent claim until, and only until, the additional limitation(s) in the dependent claims are also shown to be disclosed by the prior art reference.

Appellants request that the Board reverse this Section 102(b) rejection.

Group 3, Claim 51

Claim 51 is dependent upon independent Claim 28. Heyes et al. does not anticipate Claim 28 so it cannot anticipate dependent Claim 51.

Claim 51 requires that the shock-like cooling of the plastic layer be carried out by direct cooling using a liquid or gaseous coolant. This limitation is not recited in Claim 28 (or Claims 29 and 52) so claim 51 is separately patentable therefrom [under this Section 102(b) rejection].

Appellants request that the Board reverse this Section 102(b) rejection.

Group 4, Claim 52

Claim 52 is dependent upon independent Claim 28. Heyes et al. does not anticipate Claim 28 so it cannot anticipate dependent Claim 52.

Claim 52 requires specific types of adhesion promotion agent. This limitation is not recited in Claim 28 (or Claims 29 and 51) so Claim 52 is separately patentable therefrom [under this Section 102(b) rejection].

Appellants request that the Board reverse this Section 102(b) rejection of Claims 28, 29, 51 and 52.

Appellants note that Claims 28, 29, 51 and 52 were not rejected under 35 U.S.C. 103(a).

Not only is appellants' claimed process not anticipated by Heyes et al., it is unobvious over Heyes et al. The Examiner, who has the burden of proof, has factually established neither anticipation nor obviousness.

The following discussion shows that also Heyes et al. does not make any of appellants' claims obvious.

Appellants' process includes the step of coextruding the plastic (PP or PE) and the adhesion-promotion agent. The oleofinic plastic and the adhesion-promotion agent are melted in the extruder barrel. The New Encyclopedia Britannica, Macropaedia, Volume 14, (1974), states:

> "Extrusion. A major technique of the plastics industry, extrusion consists essentially of the melting and compression of plastic granules by the rotation of a screw conveyor in a long barrel to which heat and cold can be applied. The screw drives the plastic through a nozzle.....so as to compress and generally homogenize the melting plastic...; it serves to complete the melting...and...pumping the molten plastic through the shaping nozzle." [Emphasis supplied] [Page 519]

Upon exiting from the coextruder, appellants' process moves the coextrudate rapidly to the two-rollers, where it is combined with the aluminum foil as both begin to pass through the two rollers. The aluminum foil acts as a heat sink.

One of the very core purposes of Heyes et al. is to provide an invention that does not use polyolefin coatings, that avoids the problems caused by the

use of polyolefin coatings, and that provides advantages over polyolefin coatings. Heyes et al. states:

> "It is known to use steel or aluminum coated with polyolefin coatings as a stock preparing DWI cans. Such materials are described, for example, in U.S. Pat. No 4,096,815 and British Patent 2003415; as far as we are aware, such materials have not found commercial application."
>
> "We have found that polyolefin coatings do not form as well as thermoplastic polyesters." [Emphasis supplied] [Column 1, lines 14 to 21]
>
> "Such [substantially non-crystalline or amorphous thermoplastic polyester] coatings out-perform polyolefin coatings in DWI can forming, and retain better continuity and protection." [Emphasis supplied] [Column 1, lines 41 to 43]

Heyes et al. directs away from the use of polyolefin coatings and, hence, also directs away from appellants' claimed process.

As shown above, the comparison prior art Examples 11 and 12 of Heyes et al. (that combined polypropylene composite films and preheated aluminum sheet) provided "poor" formability and gave metal failure in can forming. One ordinarily skilled in the art is pointed away by Heyes et al. from the use of polypropylene coatings.

In the amendment (of August 28, 1991) in Heyes et al.'s U.S.S.N. 07/642,566, upon which Heyes et al. issued, Heyes et al. submitted a copy of Koga et al., U.S. Patent No. 4,849,293, (and a copy of corresponding European Published European Patent Application 0262929) that had been cited in Heyes et

al.'s corresponding U.K. application (the examiner therein initialed references on Form PTO-FB-A820). In the amendment, regarding Koga et al., Heyes et al. stated:

"Two particular amorphous polyester compositions are described. A first composition comprises (A) a low crystalline modified polyolefin, (B) an amorphous polyester and (C) a silane coupling agent. A second amorphous polyester composition comprises (A), (B) and (C) together with (D) an inorganic filler. In both compositions (A) forms a 'matrix phase', and (B) forms 'a domain phase.' Composite laminates for damping materials are described (see Col. 6, lines 59 et seq. of '293). These include metal/polyester composite structures."

"There appears to be no disclosure of a process for making a laminate of metal and non-crystalline polyester which includes a step of providing a sheet of metal and a film of biaxially-oriented polyester having a semi-crystalline structure. Furthermore, there does not appear to be two separate heating steps followed by a rapid quenching step to form a laminate of metal and non-crystalline polyester. Additionally, there appears to be no disclosure of a composite polyester film comprising an inner polyester layer and an outer polyester layer."

"The matrix/domain phase composition of this document would be unlikely to be suitable in the manufacture of containers. If a polyolefin matrix phase were used in the manufacture of cans, it would not survive the drawing and wall ironing to which the laminates of the present

invention are subjected." [Emphasis supplied] [Page 5, line 12, to page 6, line 3]

During the prosecution of Heyes et al., Heyes et al. further directed away from polyolefin coatings, which now directs away from appellants' claimed process. Heyes et al. further does not make appellants' claimed invention obvious.

A copy of the above-noted pages from the file wrapper of Heyes et al. is enclosed in (9) Evidence Appendix.

Second Grounds Of Rejection On Appeal

The second grounds of rejection on appeal for consideration by the Board in the appeal is whether or not Claim 55 is unpatentable under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,093,208 Heyes et al.). Appellants contend that such claim is not anticipated by Heyes et al.

The Examiner has written that Heyes et al. discloses a process for production of an aluminum foil (see column 2, lines 15 to 24) coated with a (sealable and sterilizible) plastic based on polypropylene (PP) consisting of co-extruding the plastic with maleic anhydride (MAH) graft modified PP (an adhesion promoting agent) and combing co-extruded PP composite of Type I with the aluminum foil between two rollers (see Fig. 4; Table I, type H; column 3, lines 35; and column 8, lines 9 to 10), the temperature at the outer surface of the plastic lies below the (crystallite) melt point (T_K) of the plastic (see column 3, lines 25, 46 and 47), then passing continuously the coated aluminum foil through a heater 10 (oven) to increase the adhesion strength between the aluminum foil and the plastic coating (see Fig. 1; column 7, lines 12 to 16) with a temperature set so

that the temperature at the outer surface of the plastic lies above the (crystallite) melt point (T_K) of the plastic (see column 3, lines 48 to 51) and quenching (cooling in a shock-like manner) the coated aluminum foil such that the crystallite plastic is converted non-crystalline or amorphous form (i.e., crystalline proportion at least in the surface area of the cooled PP layer is as small as possible) (see column 1, lines 45 to 47; column 2, lines 1 to 15; and column 3, line 39). Appellants traverse this statement for the reasons given below and also given above under the Section 102(b) rejection of the first grounds of rejection. The Examiner's reasons and description of Heyes et al. are in error as shown above. For example, the use of Heyes et al. is limited to "thermoplastic polyesters" (column 1, lines 20 and 21). Prior art comparative Examples 11 and 12 of Heyes et al. use coextruded polypropylene composite film in the Heyes et al. process to show that polyolefin provides unsatisfactory results, but such prior art polyolefin comparative examples do not anticipate because they use the non-anticipating production process of Heyes et al.

The Examiner has written that it is the Examiner's position that the surface area of the cooled PP layer has claimed properties such that if the quenched non-crystalline plastic still has a small amount of crystals, then the crystal grains are as small as possible *inherently* since it is produced by a method identical or substantially identical processes to that of claimed invention. Appellants traverse this statement as being in error for the reason given regarding the above Section 102 rejection. The process of Heyes et al. has not been factually shown in the record to be identical or substantially identical to appellants' claimed process. If

the Examiner continues in her assertion, then she is requested to factually prove it by citing supporting literature or to submit her own declaration on the matter.

The Examiner has written that it is held that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, *claimed properties or functions are presumed to be inherent*; and see MPEP 2111.02, 2112.01, In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the appellants and the prior art are the same, the appellants have the burden of showing that they are not," and In re Spada, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). These decisions are not apropos or controlling because the involved processes are not identical or substantially identical. The Examiner still has the burden of proof and she has not carried it in the record.

As noted above, in the Advisory Action, the Examiner asserted that independent Claim 28 did not exclude the step of "preheating the metal strips" because it used the term "comprises". This point is of no relevance to Claim 28 as explained above, as to what was being claimed. Independent Claim 55 excludes "preheating the metal strips", i.e., the aluminum foil, by the Examiner's standard as it uses the term "consisting of". It is presumed that the Examiner errored by not allowing independent Claim 55 since it earlier had removed the Examiner's only comment regarding the prior art in the Advisory Action.

Regarding the second grounds of rejection (II), i.e., the rejection under 35 U.S.C. 102(b), the sole-involved Claim 55 does not stand or fall together with any of the claims under the first grounds of rejection (I). Claim 55 is different.

Appellants request that the Board reverse this Section 102(b) rejection of Claim 55.

Appellants note that Claim 55 was not rejected under 35 U.S.C. 103(a).

Third Grounds Of Rejection On Appeal

The third grounds of rejection appeal on for consideration by the Board in this appeal is whether or not Claims 30 to 50, 53 and 54 are unpatentable under 35 U.S.C. 103(a) over U.S. Patent No. 5,093,208 (Heyes et al.) in view of U.S. Patent No. 5,837,360 (Takano et al.). Appellants' claims are not obvious over Heyes et al. in view of Takano et al.

Regarding the third grounds of rejection (III), i.e., the rejection under 35 U.S.C. 103(a), the claims are grouped as follows:

(i) Group 1, namely, Claims 30 to 35

(ii) Group 2, namely, Claims 36 to 43 and 48 to 50

(iii) Group 3, namely, Claims 44 to 46

(iv) Group 4, namely, Claim 47

(v) Group 5, namely, Claims 53 and 54

The claims of Group 1, the claims of Group 2, the claims of Group 3, the claim of Group 4, and the claims of Group 5 do not stand or fall together.

Group 1, Claims 30 to 35

Dependent Claims 30 to 35 deal with the starting and minimum stopping temperature of the shock like cooling of the plastic, and the shock-like cooling spread.

Appellants have shown above that appellants' claimed process is not obvious over Heyes et al. Takano et al. does not cure the defects in Heyes et al. in the search for appellants' claimed invention. The Examiner, who has the burden of proof, has not factually established in the record a prima facie showing of obviousness of appellants' claimed process.

Appellants' process includes the step of coextruding the plastic (PP or PE) and the adhesion-promotion agent. The oleofinic plastic and the adhesion-promotion agent are melted in the extruder barrel. The New Encyclopedia Britannica, Macropaedia, Volume 14, (1974), states:

> "Extrusion. A major technique of the plastics industry, extrusion consists essentially of the melting and compression of plastic granules by the rotation of a screw conveyor in a long barrel to which heat and cold can be applied. The screw drives the plastic through a nozzle.....so as to compress and generally homogenize the melting plastic....; it serves to complete the melting...and...pumping the molten plastic through the shaping nozzle." [Emphasis supplied] [Page 519]

Upon exiting from the coextruder, appellants' process moves the coextrudate rapidly to the two-rollers, were it is combined with the aluminum foil as both begin to pass through the two rollers. The aluminum foil acts as a heat sink.

One of the very core purposes of Heyes et al. is to provide an invention that does not use polyolefin coatings, that avoids the problems caused by the use of polyolefin coatings, and that provides advantages over polyolefin coatings. Heyes et al. states:

> "It is known to use steel or aluminum coated with polyolefin coatings as a stock preparing DWI cans. Such materials are described, for example, in U.S. Pat. No 4,096,815 and British Patent 2003415; as far as we are aware, such materials have not found commercial application."
>
> "We have found that polyolefin coatings do not form as well as thermoplastic polyesters." [Emphasis supplied] [Column 1, lines 14 to 21]
>
> "Such [substantially non-crystalline or amorphous thermoplastic polyester] coatings out-perform polyolefin coatings in DWI can forming, and retain better continuity and protection." [Emphasis supplied] [Column 1, lines 41 to 43]

Heyes et al. directs away from the use of polyolefin coatings and, hence, also directs away from appellants' claimed process.

As shown above, the prior art comparison Examples 11 and 12 of Heyes et al. (that combined polypropylene composite films and preheated aluminum sheet) provided "poor" formability and gave metal failure in can forming. One ordinarily skilled in the art is pointed away by Heyes et al. from the use of polypropylene coatings.

In the amendment (of August 28, 1991) in U.S.S.N. 07/642,566, upon which Heyes et al. issued, applicants submitted a copy of Koga et al., U.S.

Patent No. 4,849,293, (and a copy of corresponding European Published European Patent Application 0262929) that had been cited in Heyes et al.'s corresponding U.K. application (the examiner therein initialed references on Form PTO-FB-A820). The amendment, regarding Koga et al., states:

"Two particular amorphous polyester compositions are described. A first composition comprises (A) a low crystalline modified polyolefin, (B) an amorphous polyester and (C) a silane coupling agent. A second amorphous polyester composition comprises (A), (B) and (C) together with (D) an inorganic filler. In both compositions (A) forms a 'matrix phase', and (B) forms 'a domain phase.' Composite laminates for damping materials are described (see Col. 6, lines 59 et seq. of '293). These include metal/polyester composite structures."

"There appears to be no disclosure of a process for making a laminate of metal and non-crystalline polyester which includes a step of providing a sheet of metal and a film of biaxially-oriented polyester having a semi-crystalline structure. Furthermore, there does not appear to be two separate heating steps followed by a rapid quenching step to form a laminate of metal and non-crystalline polyester. Additionally, there appears it be no disclosure of a composite polyester film comprising an inner polyester layer and an outer polyester layer."

"The matrix/domain phase composition of this document would be unlikely to be suitable in the manufacture of containers. If a polyolefin matrix phase were used in the manufacture of cans, it would not survive

the drawing and wall ironing to which the laminates of the present invention are subjected." [Emphasis supplied] [Page 5, line 12, to page 6, line 3]

During the prosecution of Heyes et al., Heyes et al. further directed away from polyolefin coatings, which now directs away from appellants' claimed process. Heyes et al. further does not make appellants' claimed invention obvious.

The Supreme Court in United States v. Adams, 148 USPQ 479, (1966), stated:

> "We do say, however, that know disadvantages in old devices which would naturally discourage the search for new inventions may be taken into account in determining obviousness." [Emphasis Supplied] [Page 484]

Citing the above-quoted portion of the Adams decision, the C.A.F.C. in In re Gurley, 31 USPQ2d 1131. (1994) stated:

> "...; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." [Emphasis Supplied] [Page 1131]

This, of course, is exactly what comparative prior art Examples 11 and 12 of Heyes et al. do, that is, suggest that the Heyes et al. comparative prior art disclosure is unlikely to be productive of the results sought (and achieved) by the appellants.

In the subject art of the claimed invention, Heyes et al. clearly shows that polyolefins and polyesters were not considered by one ordinarily skilled in the art to be equivalent.

Heyes et al. does not make any of appellants' claims obvious; and Takano et al. does not cure the defects of Heyes et al. in the search for appellants' claimed invention. Heyes et al. also teaches one ordinarily skilled in the art to not use polyolefin coatings aluminum foil (metal sheet) if drawn and wall-ironed cans are to be manufactured therefrom.

Takano et al. also directs one ordinarily skilled in the art away from appellants' claimed invention. In Takano et al., polypropylene and a modified polypropylene are melt-coextruded and laminated on at least one side of a preheated steel sheet, i.e., desirably preheated to a temperature of from 100°C to 160°C. Takano et al. asserts that any preheating below 100°C is unsatisfactory because then the laminated entity would be below the minimum temperature for initiation of the subsequent quenching. Note also that Takano et al. does not disclose laminating by passing the films and sheet through a pair of rollers.

Levendusky et al., i.e., U.S. Patent No. 5,919,517 (cited by the Examiner), in its background-of-the-invention section, states:

> "U.S. Pat. No. 5,093,208 to Heyes et al. discloses a method for forming a laminated metal sheet in which a precast thermoplastic polyester film is pressed against one or both surfaces of a metal sheet to adhere the film to the sheet in a pressed against one or both surfaces of a

metal sheet to adhere the film to the sheet in a non-crystalline form. The uncoated sheet of metal is heated to a temperature above the melting point of the polyester film and the film is applied to the sheet under pressure to form a laminate material." [Emphasis supplied] [Column 1, lines 29 to 37]

(Levendusky et al. is assigned to Alcoa.) The art, and one ordinarily skilled in the art, view Heyes et al. as preheating the uncoated aluminum sheet to a temperature above the melting point of the polyester film. The Examiner's attempt to stick Takano et al. into Heyes et al. would destroy the invention of Heyes et al.

The Examiner referred to Levendusky et al. Levendusky et al. applies extruded, continuous, molten polymer web to a heated metal strip. Levendusky et al. also directs away from appellants' claimed invention.

The Examiner has written that it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used any conventional cooling means including ice-cooled water, cooled gas, water spray, or partial looping over at least one cooled roller of a metal foil containing laminate shock-like cooling of a coated metal foil of Heyes et al. in view of Takano et al. since Takano et al. teaches that the shock-like cooling can be carried out by any known means provided that cooling conditions are satisfied. Appellants traverse this statement. One ordinarily skilled in the art would not have any motivation to insert Takano et al. into Heyes et al.

Heyes et al. discloses (i) a generic process and (ii) two preferred subgeneric/species processes. The two preferred subgeneric/species processes are each multi-stepped with one step thereof using a metal sheet preheated to above the melting point of the polyester film (i) or preheated to between above the softening point of the polyester inner layer and below the melting point of the outer layer (ii). Column 3, lines 40 to 45, of Heyes et al. does not mention PP - it only recites polyester. Nowhere does Heyes et al. say it is preferred to laminate coextruded hot PP-based layers to a heated aluminum foil (this step is one step in a preferred multi-step process). Furthermore, Heyes et al. directs away from the use of PP because it provides poor results, etc.

Also, nowhere does Heyes et al. disclose the use of hot coextruded PP-based layers. Figures 1 and 2 show rolls of polyester film being used - there is no indication that they are other than at room temperature.

Takano et al. requires a steel sheet preheated between 100°C and 160°C. Takano et al. does not disclose the use of rollers for lamination.

Takano et al. states: "The temperature of the *** combination *** becomes nearly equal to the preheating temperature of the steel sheet immediately after the lamination ***." [Column 5, lines 36 to 40] Takano et al. does not use rollers so it is not relevant to Heyes et al.

Appellants achieve lamination in a very short time, that is, almost instantaneously in the very short distance of contact point/region between the two rollers. The melted coextrudate adheres to the aluminum foil, with

apparently improved adherence, almost instantaneously, with its outer surface cooling below the crystallite melt point.

The two rejection references are not combinable in the search for appellants' claimed invention. Even if the two rejection references are combined the result is not appellants' claimed invention. The Examiner has not factually established in the record a prima facie showing of obviousness.

The combination of Heyes et al. and Takano et al. does not result in, or suggest, any of appellants' claims.

Claims 30 to 35 are dependent upon independent Claim 28. The attempted combination of Heyes et al. and Takano et al. does not make Claim 28 obvious so dependent Claims 30 to 35 cannot be obvious over the same attempted combination. Claims 30 to 35 are separately patentable (unobvious) over the claims in Groups 2, 3, 4 and 5 as none of them even suggest the unexpectedly improved result and properties achieved by using the specified shock-like cooling speed of the plastic and the starting and minimum stopping temperatures of the shock-like cooling of the plastic.

Group 2, Claims 36 to 43 and 48 to 50

Dependent Claims 36 to 43 and 48 to 50 deal with specific ways of achieving the shock-like cooling. The attempted combination of Heyes et al. and Takano et al. does not make Claim 28 obvious so dependent Claims 36 to 43 and 48 to 50 cannot be obvious over the same attempted combination. Claims 36 to 43 and 48 to 50 are separately patentable (unobvious) over the claims in Groups 1, 3, 4 and 5 as none of them teach or suggest the content of such

claims. Furthermore, the patent statute places the burden of proof under Section 103(a) on the Patent Office.

Group 3, Claims 44 to 46

Dependent Claims 44 to 46 deal with specific adhesion-promotion agents and types thereof. The attempted combination of Heyes et al. and Takano et al. does not make Claim 28 obvious so dependent Claims 44 to 46 cannot be obvious over the same attempted combination. Claims 44 to 46 are separately patentable (unobvious) over the claims in Groups 1, 2, 4 and 5 as none of them teach or suggest the content of such claims. Furthermore, the patent statute places the burden of proof under Section 103(a) on the Patent Office.

Group 4, Claim 47

Dependent Claim 47 specifically requires that the aluminum foil is at room temperature when the aluminum foil and the coextrudate are combined. This recitation is an expressly-recited limitation of the temperature of the aluminum foil. The temperature, as shown above, of the aluminum foil of Heyes et al. is preheated and, hence, directs away from Claim 47. Takano et al. does not cure the defects of Heyes et al. in the search for appellants' Claim 47. None of appellants' other claims recite the aluminum foil being at room temperature when it is combined with the coextrudate. Further, the patent statute places the burden of proof under Section 103(a) on the Patent Office.

Group 5, Claims 53 and 54

Dependent Claims 53 and 54 deal with the process of producing packages for moist animal feed from the coated aluminum foil by Claims 28 and 45,

respectively. The attempted combination of the two rejection references does not make Claims 53 and 54 obvious.

Appellants request that the Board reverse this Section 103(a) rejection of Claims 30 to 50, 53 and 54 over Heyes et al. in view of Takano et al.

Fourth Grounds Of Rejection On Appeal

The fourth grounds of rejection on appeal for consideration by the Board in this appeal is whether or not Claims 28 to 55 are unpatentable under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. Appellants contend that such claims are patentable under Section 112, first paragraph.

Regarding the fourth grounds of rejection (IV), i.e., the rejection under 35 U.S.C. 112, first paragraph, the claims are grouped as follows:

(i) Group 1, namely, Claims 28 to 46 and 48 to 55

(ii) Group 2, namely, Claim 47

The claims of Group I and Group II do not stand or fall together.

Group I, Claims 28 to 46 and 48 to 55

In essence, the fourth grounds of rejection involves whether or not material inserted by amendment into the claims (see independent Claims 28 and 29) is new matter.

The specific language in independent Claim 28 (and in independent Claim 55) that the Examiner asserts is new matter is:

"..., the temperature of the coextruded-coated aluminum foil being such that the temperature at outer surface of the plastic (14) of the coextrudate of the plastic (14) and the adhesion-promotion agent (16) lies below the crystallite melt point (T_K) of the plastic (14). ..." [Emphasis supplied]

The Examiner has the burden of proof to establish, by sufficient evidence or reasoning in the record, that such claim language is new matter. However, other than the Examiner quoting (all or most of) such claim language and asserting that the Examiner could not find such added material in the specification (and claims) as filed, which is not sufficient under the law, the Examiner has not provided sufficient evidence or reasoning in the record to carry her burden of proof to establish a prima facie case of new matter.

Appellants advance they have pointed out where the subject matter in dispute is supported.

The Examiner has written that the Examiner respectfully disagrees with this argument; and that the Examiner expressly stated in the Office Action mailed on February 13, 2003 (Paper No. 9) that the material added with the Amendment filed on November 26, 2002, which is not supported by the original disclosure is as follows: *"The temperature of the aluminum foil, with which the coextruded plastic and adhesion-promotion agent is being combined, is such that the temperature at the surface of the plastic coating and the adhesion-promotion agent lies* ***below*** *the crystallite melt point (Tk) of the plastic" because it introduces new matter into the disclosure.* This quotation by the Examiner from

one of her earlier Office Actions is only a conclusion-it does not provide the reasons and facts required to support such conclusions. The Examiner has not complied with M.P.E.P. 706.03(o). The required explanation is missing. The Examiner has not carried her burden of proof.

The Examiner has written that, to overcome the Examiner's statement of introducing a new matter, applicants have burden of proof that the amendment is not a new matter **not** by scientific/technical principles and the knowledge of one skilled in the art, **but** pointing **pages and lines** of the specification as filed showing **factual language** describing the amendment. Appellants traverse this statement as being clearly incorrect. Section 2163.07 of the M.P.E.P. is entitled "Amendments to Application Which Are Supported in the Original Description" and states:

> "The mere inclusion of dictionary or art recognized definitions known at the time of filing an application would not be considered new matter. If there are multiple definitions for a term and a definition is added to the application, it must be clear from the application as filed that applicant intended a particular definition, in order to avoid an issue of new matter and/or lack of written description."

Section 2163.07(a), entitled "Inherent Function, Theory, or Advantage", allows insertion of subject matter based on inherency. The Examiner's assertion is clearly in error.

In the Amendment, filed on November 26, 2002, applicants included the following information to show that the subject matter into the specification was not new matter:

> "Applicants extrude a coextrudate onto the aluminum foil and then heat the aluminum foil with the coextrudate thereon by continuously passing it through an oven at a temperature set so that the temperature of the surface of the polypropylene coating and the acid-modified polypropylene lies above the crystallite melt point of the polypropylene. The coextruded-coated aluminum foil is then immediately shock-like cooled (e.g., at least 10°C) so that the crystalline proportion at least in the surface area of the cooled polypropylene coating and the crystal grains in this area are as small as possible."
>
> "Since the oven heating requires that the temperature of the surface of the polypropylene coating and the acid-modified polypropylene of the exiting coextruded-coated aluminum coating lies above the crystallite melt point of the polypropylene, the temperature of the surface of the polypropylene coating and the acid-modified polypropylene of the coextruded-coated aluminum entering the oven lies below the crystallite melt point of the polypropylene. This is implicit disclosure in applicants' specification. Original independent process Claim 1, for example, did not recite increasing the crystalline melt point temperature of the polypropylene, so the temperature (of the surface of polypropylene and the acid-modified polypropylene) had to be below the crystalline melt point

temperature of the polypropylene. In this manner, applicants' process is substantially and unobviously different from the process of Takano et al." [Page 10, line 26, to page 11, line 15]

Although required to do so, the Examiner, has not addressed at any time applicants' statement of facts and reasons why the added material is supported. The Examiner has not carried her burden of proof or even rebutted applicants' showing.

In the Amendment, filed on June 6, 2003, applicants included the following information to show that the subject matter into the specification was not new matter:

"Applicant disagree that such quoted material is new matter for the reasons given above and below."

"Referring to Figure 1, the distance between the outer end of the nozzle of extruder 12 and the nip region of rollers 20, 22 is small. The result of this short distance is that the reduction in temperature of melted coextrudate 14, 16 is minimal. The melted coextrudate 14, 16 and the aluminum foil met going into the nip region and are in the nip region for an instance. However, the temperature of the melted coextrudate essentially instantaneously drops to the extent that the temperature of the outer surface of the extrudate is less than the crystallite melt point of the polyolefin 14. This is so because, if the outer surface of the olefin was at or above such melt temperature, the pressure from the two rollers would squish and disrupt or force away at least the outer portion of the

coextrudate. The temperature of the aluminum foil, before and after contact with the melted coextrudate, is below the crystallite melt point of polyolefin 14. The language objected to by the Examiner is supported by the disclosure, scientific/technical principles, and the knowledge of one skilled in the art as to what would happen in the first step of applicants' claimed process as a result of the apparatus and its arrangement shown in Figure 1, for example." [Page 22, line 15, to page 23, line 10]

Although required to do so, the Examiner has not addressed at any time applicants' statement of facts and reasons why the added material is supported.

To repeat, the Examiner has the burden of proof to establish, by sufficient evidence or reasoning in the record, that such claim language is new matter. However, other than the Examiner quoting (all or most of) such claim language and asserting that the Examiner could not find such added material in the specification (and claims) as filed, the Examiner has not provided sufficient evidence or reasoning in the record to carry her burden of proof to establish a prima facie case of new matter.

Among other things, there are other ways, such as, knowledge in the art, prior art reference/literature, inherency, and the like, to establish that such added material is not new matter.

The Supreme Court in Webster Loom v. Higgins, 105 U.S. 580 (1881), stated:

"That which is common and well known is as if it were written out in the patent and delineated in the drawings." [Page 586]

The CAFC in Paperless Accounting, Inc. v. Bay Area Rapid Transit System, 231 USPQ 649, (1986), stated:

"A patent applicant need not include in the specification that which is already known to and available to the public." [Page 653]

The CAFC in Spectra-Physics, Inc. v. Coherent, Inc., 3 USPQ2d 1737 (1987), stated:

"A patent need not teach, and preferably omits, what is well known in the art." [Page 1743]

The CAFC in Hybritech Inc. v. Monoclonal Antibodies, Inc., 231 USPQ 81 (1986), stated:

"Furthermore, a patent need not teach, and preferably omits, what is well known in the art." [Page 94]

The CAFC in In re Wands, 8 USPQ2d 1400 (1988), stated:

"A patent need not disclose what is well known in the art." [Page 1402]

Appellants advance they have pointed out where the subject matter in dispute is supported.

M.P.E.P. 2163.04 states:

"2163.04 Burden on the Examiner with Regard to the Written Description Requirement"

"The inquiry into whether the description requirement is met must be determined on a case-by-case basis and is a question of fact. *In re Wertheim,* 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning

to the contrary has been presented by the examiner to rebut the presumption. See, e.g., *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). The examiner, therefore, must have a reasonable basis to challenge the adequacy of the written description. The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant's disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 263, 191 USPQ at 97." [Emphasis supplied]

Such required preponderance of evidence has not been supplied by the Examiner.

Appellants note that the alleged new matter in the form of language added to the claims (and to the specification) is supported by the original specification, the original drawing and information well known in the art and by the public. The Examiner has incorrectly asserted that such language has to be "factual language" describing the added material identified by pages and lines of the specification. The Examiner's assertion is not the law.

The Examiner even has the burden of proving that the language added to the claims (and the specification) is new matter.

M.P.E.P. 2163.03 (I) states:

"I. STATEMENT OF REJECTION REQUIREMENTS"

"In rejecting a claim, the examiner must set forth express findings of fact which support the lack of written description

conclusion (see MPEP § 2163 for examination guidelines pertaining to the written description requirement). These findings should:

(A) Identify the claim limitation at issue; and

(B) Establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed. A general allegation of 'unpredictability in the art' is not a sufficient reason to support a rejection for lack of adequate written description. A simple statement such as 'Applicant has not pointed out where the new (or amended) claim is supported, nor does there appear to be a written description of the claim limitation "____" in the application as filed,' may be sufficient where the claim is a new or amended claim, the support for the limitation is not apparent, and applicant has not pointed out where the limitation is supported."

[Emphasis supplied]

While the situation at bar involves subject matter added in a new claim, the Examiner still had the burden of proof to supply reasons (and/or evidence) why the added matter was new matter. However, the Examiner never supplied such reasons (and/or evidence) in the record so no prima facie case of new matter has ever arisen.

The conditions necessary for the use of the so-called "simple statement" approach referred to in M.P.E.P. 2163.03 (I) never has existed because appellants "pointed out where the limitation is supported" in the same amendment (filed on November 26, 2002) that inserted the alleged new matter into the claims (and the specification). The Examiner has never supplied the sufficient reasons (and/or evidence) to overcome such support for the claim amendment and to establish a prima facie case of new matter. Appellants have supplied support for the subject matter in dispute.

Group 2, Claim 47

Claim 47 requires that the temperature of the aluminum foil be at room temperature when the aluminum foil and the coextrudate are combined. Since specific embodiments/examples and Figures in appellants' disclosure do not spell out the temperature of the aluminum foil, scientific and technical convention (plus a C.C.P.A. decision) attributes room temperature thereto (unless otherwise shown by circumstances, etc.). Therefore, Claim 47 has been shown to not involve new matter, and does not rise or fall with any other claim. The other claims do not involve new matter and only recited that the temperature of the aluminum foil is at room temperature when the aluminum foil and the coextrudate are combined.

Appellants request that the Board reverse this Section 112, first paragraph, rejection.

Fifth Grounds of Rejection On Appeal

The fifth grounds of rejection on appeal for consideration by the Board in this appeal is whether or not Claims 28, 29, 51 and 52 are unpatentable under 35 U.S.C. on the ground that the amendment filed on November 26, 2002 introduced new matter into the disclosure. Appellants contend that such claims are patentable under 35 U.S.C. 132 as such amendment did not introduce new matter into the disclosure.

Regarding the fifth issue (V), i.e., the appealable objection under 35 U.S.C. 132 to the amendment to the specification, the claims are grouped as follows:

(i) Group 1, namely, Claims 28 to 46 and 48 to 55

(ii) Group 2, namely, Claim 47.

The claims of Group 1 and Group 2 do not stand or fall together.

Group 1, Claims 28 to 46 and 48 to 55

The Examiner has only made conclusionary statements which are insufficient to support this rejection. The Examiner has not carried her burden of proof. As quoted above, Section 70.03(o) of the M.P.E.P. requires that the Examiner's explanation address the unresolved questions that raise a doubt. The Examiner has not provided such required explanation so it is assumed that there is no basis for the Examiner's rejection and conclusion.

Appellants have shown above that the claim recitation is necessarily described and supported in the specification, and by inherency, and by the

knowledge of one skilled in the art. Those showings are incorporated herein so as to not unduly lengthen this brief.

The Examiner has written that the recitation "the temperature at the surface of the plastic coating (14) and the adhesion-promoting agent (16) lies *below* the crystallite melt point (Tk) of the plastic" in independent Claim 28 is a new matter since it was not described in the specification as filed. Appellants traverse this statement for the above and following reasons. Appellants coextrude the polyolefin (i.e., polypropylene or polyethylene) and the adhesion-promotion agent. The melted materials exit the coextruder nozzle. The coextrudate is still very hot for a substantial time after exiting the nozzle. These are inherent features of appellants' coextrusion, and the Examiner has not factually established otherwise in the record.

When the very hot coextrudate is combined with the aluminum foil, the temperature of the aluminum has to be low enough so that the outer surface of the polyolefinic portion of the coextrudate stays below the crystallite melt point (T_K) of the olefin. The coextrudate is combined with the aluminum foil between two rollers. The aluminum foil acts as a heat sink re the coextrudate – this is inherent - thereby maintaining the temperature of the outer surface of the plastic coating below the crystallite melt point (T_K) of the olefinic plastic.

The Examiner has not established in the record that applicants were not in possession of the claimed invention at the time of filing. The Examiner has not carried her burden of proof.

The Examiner has not carried her burden of proof of establishing that material inserted into the specification is new matter. The Examiner has merely quoted the added material and asserted that it is new matter. The Examiner has not even set out any reason or explanation of why the added material is new matter, or any facts to support her assertion of new matter.

The Examiner is also in error in her assertion that appellants can only show that the added material is not new matter by "pointing" to "pages and lines in the specifications." Note that the Examiner has not cited any decisions, regulations, or the like as supporting her assertion. However, the burden of proof is on the Examiner, and not on the applicants.

Appellants have done that which is required of them. Appellants set out why there was support for the added material.

The Examiner then asserted that the added material was new matter. However, such assertion and quotation of the added material is not sufficient to carry the Examiner's burden of proof that the added material is new matter and that appellants' reasons, etc., of support for the added material are insufficient, incorrect or the like.

Once the Examiner asserts that added material is new matter, the ball (i.e., burden of proof) is in her court. This is shown in the M.P.E.P. In this case, the Examiner has not carried her burden of proof.

To the simple question of why is the added material new matter (within the meaning of 35 U.S.C. 132), the Examiner has not provided any facts, reasons or the like in the record.

Section 706.03(o), "New Matter", of the M.P.E.P. states:

"If new matter is added to the specification, it should be objected to by using Form Paragraph 7.28."

"7.28 Objection to New Matter Added to Specification"

"The amendment filed [1] is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: [2]."

"Applicant is required to cancel the new matter in the reply to this Office Action."

"Examiner Note:

1. This form paragraph is not to be used in reissue applications; use form paragraph 14.22.01 instead.

2. In bracket 2, identify the new matter by page and line numbers and/or drawing figures and provide an appropriate explanation of your position. This explanation should address any statement by applicant to support the position that the subject matter is described in the specification as filed. It should further include any unresolved questions which raise a doubt as to the possession of the claimed invention at the time of filing." [Emphasis Supplied]

The Examiner has not provided in the record the required explanation, including supporting reasons, facts and the like, of (i) her position, and that (ii)

addressed appellants' statement of why the added material was supported. The Examiner has not carried her burden of proof and has not established any prima facie showing of new matter.

The Examiner has written that appellants argue that the Examiner has not carried her burden of proof of factual establishment of a new matter. The Examiner has not carried her burden of proof.

Group 2, Claim 47

Claim 47, as shown above, does not involve new matter. That the temperature of the aluminum foil is at room temperature when combined with the coextrudate has been shown to be supported by scientific and technical convention. Therefore, Claim 47 is supported by the specification, and new matter is not involved. The other claims do not involve new matter, and only recite that the temperature of the aluminum foil is at room temperature when the aluminum foil and the coextrudate are combined.

Appellants request that the Board reverse this appealable Section 132 objection to the specification.

(11) MISCELLANEOUS

Appellants request that the Board reverse the several rejections and the appealable objection.

The fee required by 37 C.F.R. 1.17(c) for the appeal brief was filed on November 26, 2004. In the event that there are any discrepancies concerning the fees necessary upon filing this appeal brief, the Commissioner for Patents is

hereby authorized to charge and deficits or to credit any overpayments to Deposit Account No. 06-1110.

A request for an oral hearing and the appropriate fee (by check) therefor were filed separately from the appeal brief on November 26, 2004.

The claims involved in this appeal are set out in attached (8) Claims Appendix.

Also attached is (9) Evidence Appendix.

Further attached is (10) Related Proceeding Appendix.

Two signed copies of this appeal brief are submitted herewith.

Respectfully Submitted,

Oct. 17, 2005
Date

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(8) CLAIMS APPENDIX

The claims involved in the appeal are:

28. A process for production of an aluminum foil (10) coated with a sealable and sterilizible plastic (14) based on polypropylene (PP) or polyethylene (PE), comprising coextruding the plastic (14) with an adhesion-promotion agent (6), to form a coextrudate, combining the coextendate of plastic (14) and adhesion-promotion agent (16) with an aluminum foil (24) between two rollers (20,22), the temperature of the coextruded-coated aluminum foil being such that the temperature at outer surface of the plastic (14) of the coextrudate of the plastic (14) and the adhesion-promotion agent (16) lies below the crystallite melt point (T_K) of the plastic (14), then passing continuously the coextruded-coated aluminum foil (10), to increase the adhesion strength between the aluminum foil (24) and the plastic coating (14), through an oven (26) with temperature (T_o) set so that the temperature at the outer surface of the plastic (14) of the coextrudate of the plastic (14) and the adhesion-promotion agent (16) lies above the crystallite melt point (T_K) of the plastic (14), and cooling the coextruded-coated aluminum foil (10) heat-treated in this way, after emerging from the oven (26), in a shock-like manner such that the crystalline portion of at least in the outer surface area of the cooled plastic coating (14) and the crystal grains in this outer surface area are as small as possible.

29. The process according to Claim 28, wherein the temperature (T_O) of the oven (26) lies at least 20°C above the crystallite melt point (T_K) of the plastic (14).

30. The process according to Claim 29, wherein the start temperature (T_S) for the shock-like cooling of the plastic layer (14) lies above the crystallite melt point (T_K) of the plastic (14) and the end temperature (T_E) of the shock-like cooling lies at least 40°C below the crystallite melt point (T_K).

31. The process according to Claim 30, wherein the end temperature (T_E) of the shock-like cooling is at least 60°C.

32. The process according to Claim 31, wherein the end temperature (T_E) of the shock-like cooling is at least 80°C below the crystallite melt point (T_K) of the plastic (14).

33. The process according to Claim 34, wherein the shock-like cooling speed (V_A) of the plastic layer (14) is greater than 10°c/sec.

34. The process according to Claim 32, wherein the shock-like cooling speed (V_A) is greater than 50°C/sec.

35. The process according to Claim 34, wherein the shock-like cooling speed (V_A) is greater than 100°C/sec.

36. The process according to Claim 34, wherein the shock-like cooling of the plastic layer (14) is carried out by partial looping over at least one cooled roller (20, 22).

37. The process according to Claim 36, wherein the shock-like cooling of the plastic layer (14) is carried out by direct cooling by means of a liquid or gaseous coolant (30).

38. The process according to Claim 37, wherein the extrusion-coated aluminum foil (10) is passed through water.

39. The process according to Claim 38, wherein the extrusion-coated aluminum foil (10) is passed through ice-cooled water.

40. The process according to Claim 37, wherein the extrusion-coated aluminum foil (10) is sprayed with liquid coolant (30).

41. The process according to Claim 40, wherein the extrusion-coated aluminum foil (10) is sprayed with water.

42. The process according to Claim 37, wherein the extrusion-coated aluminum foil (10) is cooled by means of a gas.

43. The process according to Claim 42, wherein the extrusion-coated aluminum foil (10) is cooled by means of a cooled gas.

44. The process according to Claim 37, wherein the adhesion-promotion agent (16) is a co- or terpolymer modified to promote adhesion with ethylene (E) or propylene (P) as one of the monomer components.

45. The process according to Claim 44, wherein the copolymer or terpolymer is selected from the group consisting of E.AA, E.MAA, E.VA, E.MA, E.EA, E.nBA, E.CO, E.VA.CO, E.nBA.CO, E.AE.AA and P.MAH, where AA is acrylic acid, AE is acryl ester, (MA,EA,BA), nBA is n-butyl acrylate, CO is carbon monoxide, MAA is methacrylic acid, MAH is maleic and VA is vinyl acetate.

46. The process according to Claim 45, wherein the acryl ester is MA that is methyl acrylate, EA that is ethyl acrylate or BA that is butyl acrylate.

47. The process according to Claim 37, wherein the aluminum foil (24) is at room temperature when the aluminum foil (24) and the coextruded plastic (14)/adhesion-promotion agent (16) are combined.

48. The process according to Claim 37, wherein the start temperature (T_S) for the shock-like cooling of the plastic layer (14) lies above the crystallite melt point (T_K) of the plastic (14) and the end temperature (T_E) of the shock-like cooling lies at least 40°C below the crystallite melt point (T_K).

49. The process according to Claim 37, wherein the shock-like cooling speed (V_A) of the plastic layer (14) is greater than 10°C/sec.

50. The process according to Claim 28, wherein the shock-like cooling of the plastic layer (14) is carried out by partial looping over at least one cooled roller (20, 22).

51. The process according to Claim 28, wherein the shock-like cooling of the plastic layer (14) is carried out by direct cooling by means of a liquid or gaseous coolant (30).

52. The process according to Claim 28, herein the adhesion promotion agent (16) is a co- or terpolymer modified to promote adhesion with ethylene (E) or propylene (P) as one of the monomer components.

53. The process comprising producing a package (40) for moist animal feed (42) from the coated aluminum foil (10) produced by the process according to Claim 28.

54. The process comprising producing a package (40) for moist animal feed (42) from the coated aluminum foil (10) produced by the process according to Claim 45.

55. A process for production of an aluminum foil (10) coated with a plastic (14), consisting of coextruding the plastic (14), that is sealable and sterilizible and

that is based on polypropylene (PP) or polyethylene (PE), with an adhesion promotion agent (6), to form a coextrudate, laminating the coextrudate of plastic (14) and adhesion-promotion agent (16), and an aluminum foil (24) together between two rollers (20, 22), the adhesion-promotion agent (16) being next to the aluminum foil (24), the temperature of the coextruded-coated aluminum foil being such that the temperature at outer surface of the plastic (14) of the coextrudate of the plastic (14) and the adhesion-promotion agent (16) lies below the crystallite melt point (T_K) of the plastic (14), the continuously passing the coextruded-coated aluminum foil (10), to increase the adhesion strength between the aluminum foil (24) and the plastic coating (14), through an oven (26) with temperature (T_O) set so that the temperature a the outer surface of the plastic (14) of the coextrudate of the plastic (14) and the adhesion-promotion agent (16) lies above the crystallite melt point (T_K) of the plastic (14), and cooling the coextrudated-coated aluminum foil (10) heat-treated in this way, after emerging from the oven (26), in a shock-like manner such that the crystalline portion in at least the outer surface area of the cooled plastic coating (14) and the crystal grains in this outer surface area are as small as possible.

(9) EVIDENCE APPENDIX

A copy of the following item is enclosed:

(a) Pages 5 and 6, amendment dated August 28, 1991, U.S.S.N. 07/642,566, applicants: Heyes et al., from U.S. Patent No. 5,093,208 issued on March 3, 1992.

U.S. Patent 4,849,293 (Koga et al)

These documents relate to an amorphous polyester composition and uses thereof, particularly in relation to damping materials. The stated objects of the invention (col. 2, lines 21-31 of '293) are to provide an amorphous polyester composition having good adhesion properties to different materials such as metal and to provide a damping material comprising an amorphous polyester composition. Such materials appear more suited to the automotive trade and do not appear to be suited to the manufacture of containers.

Two particular amorphous polyester compositions are described. A first composition comprises (A) a low crystalline modified polyolefin, (B) an amorphous polyester and (C) a silane coupling agent. A second amorphous polyester composition comprises (A), (B) and (C) together with (D) an inorganic filler. In both compositions (A) forms a "matrix phase" and (B) forms "a domain phase." Composite laminates for damping materials are described (see Col 6, lines 59 et seq. of '293). These include metal/polyester composite structures.

There appears to be no disclosure of a process for making a laminate of metal and non-crystalline polyester which includes a step of providing a sheet of metal and a film of biaxially-oriented polyester having a semi-crystalline structure. Furthermore, there does not appear to be two separate heating steps followed by a rapid quenching step to form a laminate of metal and non-crystalline polyester. Additionally, there appears to be no disclosure of a composite polyester film comprising an inner polyester layer and an outer polyester layer.

The matrix/domain phase composition of this document would be unlikely to be suitable in the manufacture of contain-

ers. If a polyolefin matrix phase were used in the manufacture of cans, it would not survive the drawing and wall ironing to which the laminates of the present invention are subjected.

Respectfully submitted,

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August 28, 1991

(10) RELATED PROCEEDING APPENDIX

There are no related decisions rendered by a Court or the Board in any proceeding identified pursuant to Section (2) Related Appeals and Interferences above.